



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,097	05/03/2001	Michael Zobel	M0-6332/LEA	8436

157 7590 01/25/2002

BAYER CORPORATION
PATENT DEPARTMENT
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

ASINOVSKY, OLGA NMN

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 01/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

FD-4

Office Action Summary

Application No. 09/831,097	Applicant(s) Zobel et al
Examiner Olga Asinovsky	Art Unit 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 3, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-13, and 17-19 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13, and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No.(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No.(s). 2 20) ☐ Other: _____

Art Unit: 1711

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-6, 8-13 and 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of each claims 1-6 should recite -A homo- and/or co-polymer-

Claim 1 is indefinite, because the condition of the claimed "homo- and/or co-polymers" is not clear. It could be in a form of a solid powder (a comminuted thermoplastic resin) or in a form of latex.

Claims 8-13 stands in wrong dependency of claim 17. A claim may refer to any preceding claim.

Each claims 8-13 is indefinite in light of the phrase "Thermoplastic moulding compositions". Because the invention is only one composition, it should be -A thermoplastic moulding composition- .

Claim 8 recites the limitation "graft polymers of resin-forming vinyl polymers from a rubber" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim 8. Claim 8 is depending on claim 17. There is no graft polymer in claim 17.

ArtUnit: 1711

Claim Rejections - 35 USC § 102 or 103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13 and 17-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gallagher U.S. Patent 3,969,431 or McClain U.S. Patent 4,336,210.

The claimed invention is a (co)polymer having less than 100 ppm of coarse portions having particles size of from 200 to 500 microns.

Gallagher discloses rigid vinyl chloride polymers having a plurality of elastomer-containing interpolymer particles, claim 1 at column 10. The elastomer interpolymer particles are prepared by an aqueous emulsion polymerization of butyl acrylate and 2-ethylhexyl acrylate. The "suspension-emulsion interpolymer" (SEI) particles have a particle size in the range of from about 10 to 200 microns, column 8, line 49. Gallagher discloses a process for making a product by the

Art Unit: 1711

suspension polymerization of vinyl chloride in the presence of a copolymer of butyl acrylate and 2-ethylhexyl acrylate, column 1, lines 42-49 and column 2, lines 2-6, this is a graft emulsion polymerization process, column 2, line 68. The SEI particles may be dispersed in the vinyl chloride polymer, column 8, lines 66-67. A polyvinyl chloride-SEI blend may contain from about 3 to 90% by weight of the SEI particles, column 9, line 30.

McClain discloses thermoplastic resin composition in the powder form. The thermoplastic resin composition comprises polyethylene homopolymer (preferred), ethylene-vinyl acetate copolymer and a water-insoluble ionomer polymer, claims 1-8 at columns 37-38. The ethylene-vinyl acetate copolymer powders have particle sizes in the range of about 50 to 500 microns, column 19, line 25. The thermoplastic resin can be selected in wide varies of homopolymers and copolymers, column 4, lines 45-68. The ethylene-vinyl acetate copolymer serves as an impact modifier for a thermoplastic resin.

Each of the cited references discloses a thermoplastic resin having particles having a large particle size of 200 microns in Gallagher's invention or particles having 500 particle sizes in McClain's invention. It is reasonable to presume that the properties of the thermoplastic resin can be controlled by the selected amount of the large particle's size of being present in said thermoplastic resin composition in each cited references. Also, a thermoplastic resin composition can include addition additives such as other thermoplastic resin, flameproofing agent and inorganic filler. It is a burden on the applicants to provide the difference in order to overcome these rejections under *In re Fitzgerald* 205 USPQ 594.

Art Unit: 1711

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aubrey et al U.S. Patent 3,509,238.

Aubrey discloses ABS graft polyblends containing two graft polymers with different degree of grafting. A composition comprises a matrix of a polymerizable styrene/acrylonitrile comonomers and two graft copolymers having a graftable rubber substrate and a superstrate of styrene/acrylonitrile comonomers, column 2, lines 7-18. The two graft copolymers can be included in the composition in the amount of from 1 to 70% of the total blend, column 2, line 25. Rubber substrate is latex which is produced by the emulsion polymerization, column 5, line 61. Particle size of the emulsion graft particles may be varied by controlled agglomeration, column 6, lines 38-44. The preferred particle sizes of the rubber substrate are 0.03 to 0.6 micron, claim 1 at column 11.

Reference does not disclose particles having a particle diameter size of from 200 to 500 microns. However, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention was made to use a process for producing ABS graft polyblends in Aubrey's invention wherein a graft rubber substrate can have a particle diameter of 200 microns since

Art Unit: 1711

reference clearly discloses that a rubber substrate is a latex produced by emulsion polymerization wherein particles size are controlled by agglomeration technique, column 6, line 43. It is the examiner's position that it would have been prima facie obvious to use an emulsion polymerization of latex for producing rubber having the particle size in the claimed range by using agglomeration technique.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art is relevant to show the state of the art knowledge.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is (703) 308-0041. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

O.A.

O.A.

January 21, 2002


